District 9 Bishop G District 9 Bishop



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| DATE: June 2, 1993 | | | | |
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| DISTRICT/CITY: DIS | | , | FOLLOW: B | |
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| THANK YOU FOR YOUR COOPERATION. IF ANY PROBLEMS OR QUESTIONS CALL: ATSS 627-0625 | | | | |
| I'm sending you some more into via MAIL. | | | | |

THE STATEWIDE RADIOACTIVE MATERIALS

TRANSPORTATION PLAN

PHASE II

Prepared for

Nevada Department of Transportation

Prepared by

College

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NUCLEAR WASTE PROJECT OFFICE

PROPERTY OF INYO COUNTY YUCCA MOUNTAIN REPOSITORY ASSESSMENT OFFICE

4.6 Points of Entry from California to Nevada

From California to Mercury there are many possible entry points. However, only the following were considered in the analysis: U.S. 395 at Bordertown, I-80 at Verdi, U.S. 50 at Stateline, U.S. 395 south of Gardnerville, SR 373 south of Amargosa Valley, SR 372 west of Pahrump, I-15 south of Jean, SR 164 west of Searchlight and U.S. 95 from I-40 at Needles, California.

With the exception of Interstate routes, the only routes under consideration by California are those routes that connect with Nevada SR 373, SR 372 and SR 164. These routes were included in this study and linked to highways in California (see Figure 2 and section 4.6.1). Through risk analysis these highways were identified as alternative routes. However, their use in Nevada hinges on California's decision to designate their adjoining routes.

Phase I of this study showed no shipments using U.S. 395 as entry or exit points, and it is not considered in California's proposed routing plan. Therefore, alternative routes were not identified from Bordertown or U.S. 395 south of Gardnerville.

U.S. 95 has not been used to transport radioactive materials. The route was only considered from the California-Nevada border to the Intersection with SR 164 at Searchlight. North of Searchlight, U.S. 95 goes through high

population density areas (Henderson and Las Vegas). Feasible routing alternatives with less population densities exist (See 4.6.1).

Alternative routes were not identified from California using U.S. 50, not only because this route has not been used to transport radioactive materials, but because of its proximity to Lake Tahoe.

Only one shipment in 1982 used Verdi as a point of entry in route to Beatty. This shipment used U.S. 95A and U.S. 95. This shipment originated in Pleasanton, California. U.S. 95 is not being considered as an alternative route from its intersection with I-80 to Tonopah at this time. There are feasible alternatives to this routing and route necessity has not been determined. California's routing plan shows future shipments using an entry point in the southern part of Nevada.

Currently, California is performing an analysis to select preferred routes. California has included in its analysis CA 127 which connects with SR 373, CA 178 which connects with SR 372 and the Nipton Road which connects with SR 164. California provided information on some of the parameters for California routes 127, 178 and the Nipton Road.

4.6.1 I-15 at Baker (CA) and I-40 at Needles (CA) to Mercury

Alternative route possibilities were identified between I-15 at Baker (CA) and I-40 at Needles (CA) to Mercury. These alternative routes depend upon the use of U.S 95 in California, CA 127 and the Nipton Road.

Route C. From Baker with CA 127.

North on CA 127, north on SR 373, south on U.S. 95
Route D. From Baker without CA 127.

North on I-15, west on SR 160, south on U.S. 95

Route E. From Needles with U.S. 95, CA 127 and the Nipton Road.

North on U.S. 95, west on SR 164, west on I-15, north on CA 127, north on SR 373, south on U.S.95

Route F. From Needles without CA 127 and the Nipton Road.

West on I-40, East on I-15, West on SR 160, South on U.S. 95

Figure 7 shows routes C, D, E and F. For clarity, route C is shown with dots, route D is shown with diamonds, route E is shown with stars and route F is shown with a solid line. Table 4 shows a comparison of parameters for routes C and D. Table 5 shows a comparison for parameters for routes E and F. Data for the routes using California's highways are incomplete (including I-15 and I-40)because only information of obtained parameters some were from California.

Table 4. Comparison of Parameters for Routes From Baker (CA) to Mercury.

| <u>-</u> | | | |
|-----------------------|--------------|---------|--|
| PARAMETER | Route C D | | |
| FARAME I ER | C | D | |
| No. of Lanes | 2.000 | 3.006 | |
| Shoulder Width | 1.523 | 5.682 | |
| Surface Type | I,J, & G | I,J & G | |
| Critical 4% grades | 2 | 9 | |
| Critical 5% grades | 0 | 3 | |
| Critical 7% grades | 0 | 0 | |
| Critical Curves | 0 | 0 | |
| RR Crossings | 0 | 2 | |
| Capacity of Bridges | • | • | |
| ADT | 657.7 | 8,637.0 | |
| Truck ADT | - | - | |
| Total Acc. Rt. | 0.834 | 2.014 | |
| Truck Acc. Rt. | - | - | |
| High Acc. Locations | - | - | |
| No. of Acc. | - | - | |
| Population | 4 | 1,217 | |
| Fire Stations | 0 | 2 | |
| Hospitals | 1 | 0 | |
| Schools | 1 | 7 | |
| Rest Areas | 0 | 0 | |
| Annual Snowfall | <10" | <10" | |
| Annual Rainfall | 8"-16" | 8"-16" | |
| Wind | • | - | |
| Dust | • | - | |
| Flood | • | - | |
| Ave. Speed | 57.838 | 60.765 | |
| Time of Travel (min.) | 135 | 179 | |
| Distance (miles) | 130 | 179 | |

Table 5. Comparison of Parameters for Routes From Needles (CA) to Mercury

| | Noute | | |
|-----------------------|---------|----------|--|
| PARAMETER | E | P | |
| No. of Lanes | 2.318 | 3.520 | |
| Shoulder Width | 3.208 | 7.779 | |
| Surface Type | I,J & G | I,J & G | |
| Critical 4% grades | 4 | 9 | |
| Critical 5% grades | 0 | 3 | |
| Critical 7% grades | 0 | 0 | |
| Critical Curves | 0 | 0 | |
| RR Crossings | 0 | 0 | |
| Capacity of Bridges | - | - | |
| ADT | 2,439.0 | 4,167.0* | |
| Truck ADT | - | - | |
| Total Acc. Rt. | - | - | |
| Truck Acc. Rt. | • | - | |
| High Acc. Locations | - | - | |
| No. of Acc. | - | - | |
| Population | 910 | 18,946 | |
| Fire Stations | ••• | - | |
| Hospitals | - | - | |
| Schools | - | • | |
| Rest Areas | - | - | |
| Annual Snowfall | <10" | <10" | |
| Annual Rainfall | 8"-16" | 8"-16" | |
| Wind | - | - | |
| Dust | - | - | |
| Flood | - | - | |
| Ave. Speed | 58.788 | 62.957 | |
| Time of Travel (min.) | 252 | 356 | |
| Distance (miles) | 245 | 371 | |
| | | | |

^{*}Does not include Needles to Barstow or Barstow to Baker in CA

If the state of California does not designate CA 127 and the Nipton Road, routing of trucks entering California on I-40 or using I-15 to or from Nevada, would use Route D or Route F.

If the state of California designate U.S. 95 from I-40 to the Nevada border, the Nipton Road and CA 127, I-15 will not be the preferred route from the California-Nevada border to SR 160. Routing of trucks entering California on I-40 or using I-15 (in California) would use Route C or Route E.

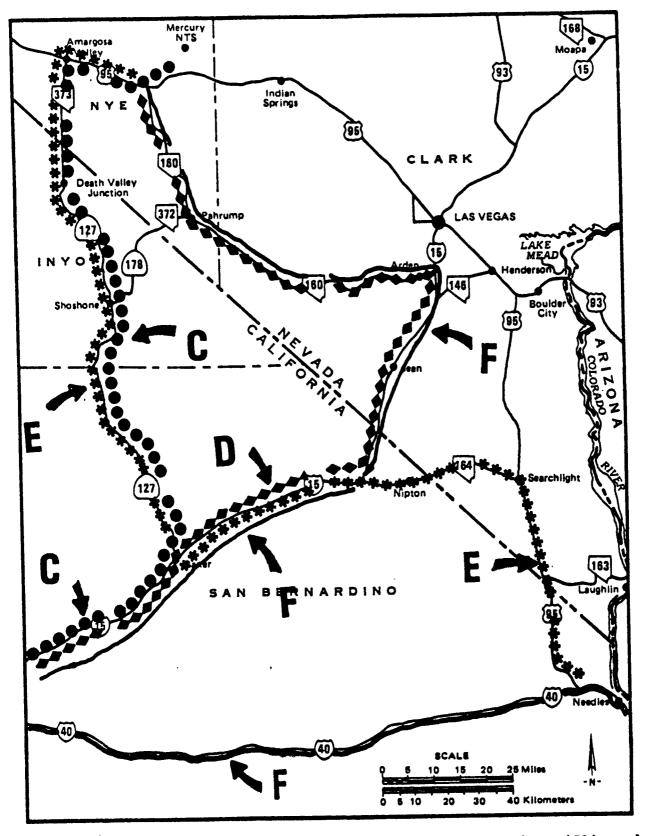


Figure 7. Routes Identified by StateGEN From Baker (CA) and Needles (CA) to Mercury.

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